

Oxide Dispersion-Strengthened (ODS) Alloys

Project Lead

Oak Ridge National
Laboratory (ORNL)
Oak Ridge, TN




Description

Oxide dispersion-strengthened alloys employ mechanical alloying of an oxide into the base composition(s). Studies to date have included those that measure the high-temperature resistance to oxidation and sulfidation; determination of creep strength of such alloys as compared to the conventional series; development of methods to produce high-temperature high-strength heat exchanger tubes; examination of microstructural and macroscopic components to correlate mechanical and creep-life requirements of power generation systems.

Duration: 10/1/97 - 9/30/01

This project will address the materials-related barriers to expediting the use of oxide-dispersion strengthened (ODS) alloys in components which are required in DOE's Office of Fossil Energy, Vision 21 processes to operate at temperatures higher than is possible with conventionally-strengthened alloys.

Product Support Areas

Gasification Technologies	Combustion Technologies	Sequestration	Environmental & Water Resources	Advanced Turbine & Engines	Fuel Cells
					



Project: FEAA04
Code: ORNL-2D

Contact Information

Robert Romanosky
NETL Product Manager
(304) 285-4721
robert.romanosky@netl.doe.gov

Richard Read
NETL Project Manager
(412) 386-5721
richard.read@netl.doe.gov